Fig. 1

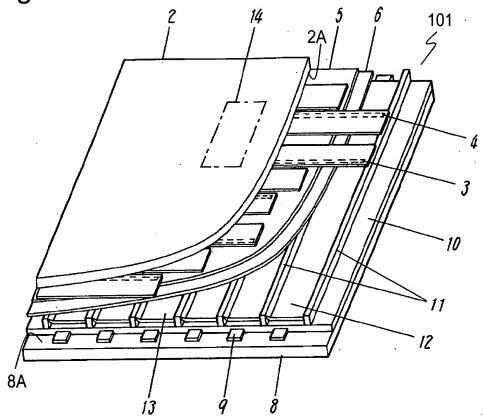


Fig. 2

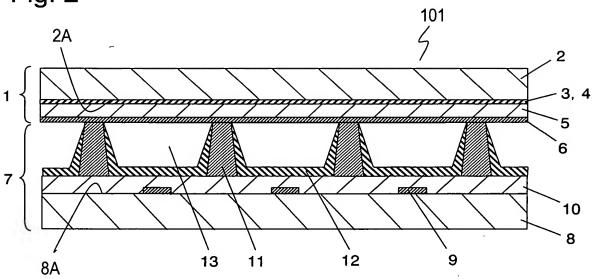


Fig. 3

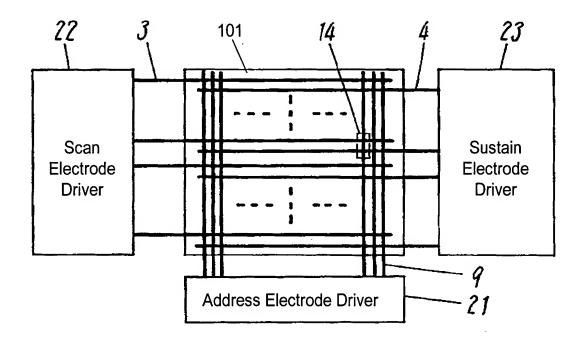


Fig. 4

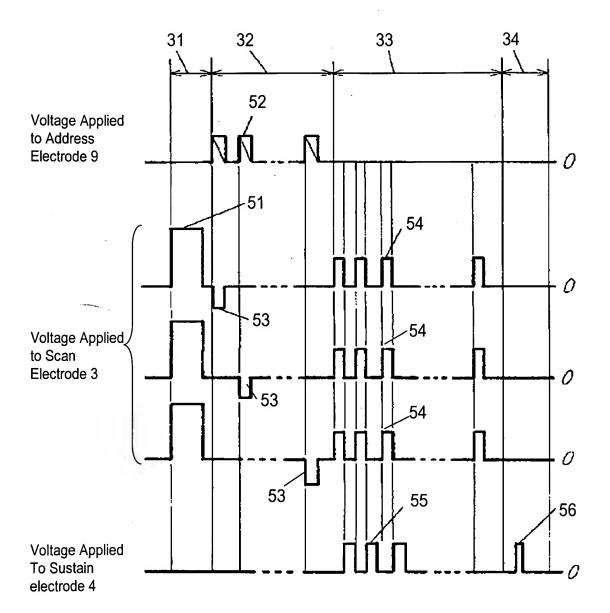


Fig. 5

| Sample No. | Magnesium Carbide | | Activotica | Flicker on |
|---------------|--------------------------------|-------------------------------|----------------------|------------|
| | Composition | Concentration (ppm by weight) | Activation Energy | Screen |
| 1 * | MgC_2 | 50 | 0.29 | None |
| 2 | MgC_2 | 200 | 0.28 | None |
| 3 | MgC_2 | 1000 | 0.24 | None |
| 4 | $ m MgC_2$ | 7000 | 0.26 | None |
| 5 | $\mathrm{Mg_2C_3}$ | 50 | 0.28 | None |
| 6 | $\mathrm{Mg_2C_3}$ | 70 | 0.29 | None |
| 7 | $\mathrm{Mg_{2}C_{3}}$ | 500 | 0.25 | None |
| 8 | $\mathrm{Mg_2C_3}$ | 2000 | 0.25 | None |
| 9 | $\mathrm{Mg_2C_3}$ | 7000 | 0.29 | None |
| 10 | Mg ₃ C ₄ | 50 | 0.28 | None |
| 11 | $\mathrm{Mg_{3}C_{4}}$ | 100 | 0.26 | None |
| 12 | $\mathrm{Mg_{3}C_{4}}$ | 500 | 0.25 | None |
| 13 | $\mathrm{Mg_3C_4}$ | 3000 | 0.24 | None |
| 14 | ${ m Mg_3C_4}$ | 7000 | 0.29 | None |
| 15 | $ m MgC_2$ | 8000 | 0.82 | Visible |
| 16 | $\mathrm{Mg_2C_3}$ | 20 | 0.53 | Visible |
| 17 | None | 0 | 1 | Visible |

Reference Numerals

| 1 | Front Panel |
|---|-----------------------|
| 2 | Front Glass Substrate |
| 3 | Scan Electrode |

- 4 Sustain Electrode
- 5 Dielectric Layer6 Protective Layer
- 7 Rear Panel
- 8 Rear Glass Substrate
- 9 Address Electrode
- 10 Electrode Protective Layer
- 11 Barrier Rib
- 12 Phosphor Layer
- 13 Discharge Space
- 14 Discharge Cell
- 101 Plasma Display Panel